they do not excavate new ones. Although they can adjust and enlarge the existing holes, removing old debris and moulder, before building in them. Occasionally, they also enlarged the holes by wood: over 92% of their holes were situated in living trees. Wood was plentiful (Wesolowski, 1993). Marsh Tits are secondary hole nesters; their breeding is not excavating. As it lays only one, relatively small, clutch per season, its shifting to the correct category of Isenmann & Martin (1996) classification would substantially weaken the authors' main conclusion, namely that there exist sharp contrasts in life-histories between the excavating and non-excavating species.

TOMASZ WESOLOWSKI

Department of Avian Ecology, Wroclaw University.
Sienkiewicza 21, 50 335 Wroclaw, Poland
Email: tomwes@biol.uni.wroc.pl

References


Letters

Marsh Tits (Parus palustris) are not excavators

In a recent paper on the relationships between the clutch size and hole excavation behaviour of European tits, Isenmann and Martin (1996) treat the Marsh Tit as an excavating species. This decision, however, seems contrary to current literature.

During a long-term study of the Marsh Tit in the Białowiesza National Park, not a single case of hole excavation by this species was observed, despite observations at more than 500 holes (Wesolowski 1996, in press). The study was carried out in a primaeval forest where dead wood was plentiful (Wesolowski & Tomiałojc 1995), so the birds could easily find places to excavate, had they wished to. What is more, Marsh Tits avoided holes in dead wood: over 92% of their holes were situated in living trees (Wesolowski 1996). The birds usually cleaned the holes, removing old debris and moulder, before building in them. Occasionally, they also enlarged the existing holes by removing rotten wood chips or clipped the entrances. Data from other areas are consistent with this picture. Everywhere from England (Morley 1953) through Central Europe (Steinfatt 1938, Ludescher 1973) to Russia (Mal'tsevskyi & Pukinsonyi 1983, Markovets & Visotskiy 1993) Marsh Tits are secondary hole nesters; although they can adjust and enlarge the existing holes, they do not excavate new ones.

Summing up, all the primary sources unequivocally show that the Marsh Tit is not an excavator. As it lays only one, relatively small, clutch per season, its shifting to the